

J. ERNEST KENNEY
EUGENE MAR
RICHARD E. FICHTER
CHARLES R. WOLFE, JR.
THOMAS J. MOORE
JOSEPH DEBENEDICTIS
BENJAMIN E. URCIA
KLIFTON L. KIME
WILLIAM F. MEINZE

GEORGE CHUNG CHIN CHEN

* BAR OTHER THAN VA.
* REG. PATENT AGENT

LAW OFFICES

BACON & THOMAS

A PROFESSIONAL LIMITED LIABILITY COMPANY
PATENT TRADEMARK AND COPYRIGHT CAUSES
625 SLATERS LANE - FOURTH FLOOR
ALEXANDRIA, VIRGINIA 22314-1176

U.S.A.

TELEPHONE
(703) 683-0500

FACSIMILE
(703) 683-1080

E-Mail
mail@baconthomas.com

FACSIMILE COMMUNICATION

To: Examiner McDowell
USPTO

Date: January 10, 2002

Fax #: 703-308-7749

Re: U.S. Patent Application Serial No. 09/243,433
Inventors: LO et al.

From: Richard E. Fichter

Confidential/Privileged

This communication contains confidential information that is intended to be received and read only by the party named as addressee (listed after "To:" at the left). This communication may contain information that is subject to the attorney/client privilege and/or a court order restricting its dissemination. No one else is entitled to read, use, copy or disseminate this communication or the information contained herein. If you are not the addressee, then contact us immediately by telephone (collect) or facsimile and arrangements will be made for the return to us of this communication.

Thank you, BACON & THOMAS, PLLC.

10

Pages Sent Including This Sheet.

- ☐ Please confirm receipt by return facsimile.
- ☐ Please call sender.
- ☐ Confirmation copy follows by ☐ Mail ☐ Courier
- ☐

Message:

Attached are copies of the petition to withdraw the holding of abandonment and attachments filed therewith in connection with the above identified application. If we can be of further assistance or you need additional information, please let us know.

BACON & THOMAS

625 Slaters Lane 4th Fl., Alexandria, VA 22314

PATENT APPLICATION
(PENDING)

204613002

Serial No: 09/243,433

Filed: February 3, 1999

Attorney: REF

Applicant(s): LO et al.

Due Date: 11/16/00

☒ MAILROOM☐ ART UNIT☐Special Instructions:

The PTO stamp hereon acknowledges receipt of:

- | | | |
|--|---|---|
| <input type="checkbox"/> Amendment/Response | <input type="checkbox"/> Missing Parts Response w/Decl. | <input type="checkbox"/> Request for Refund |
| <input type="checkbox"/> Check \$ | <input type="checkbox"/> Appeal Brief (Triplicate) | <input type="checkbox"/> |
| <input type="checkbox"/> Issue Fee | <input type="checkbox"/> Priority Documents(s) | <input type="checkbox"/> Assignment |
| <input type="checkbox"/> Preliminary Amendment | <input type="checkbox"/> Notice of Appeal | |
| <input type="checkbox"/> Extension of Time Petition | <input type="checkbox"/> Substitute Declaration | |
| <input type="checkbox"/> Terminal Disclaimer | <input type="checkbox"/> Information Disclosure Stmt. /references | |
| <input type="checkbox"/> Reply Brief (Triplicate) | <input type="checkbox"/> Request for CPA | |
| <input type="checkbox"/> Sheets of Drawings - | <input type="checkbox"/> Formal <input type="checkbox"/> Informal | |
| <input type="checkbox"/> Sm. Entity Statements -- | <input type="checkbox"/> Inv. <input type="checkbox"/> Sm. Bus. <input type="checkbox"/> Non-Inv. <input type="checkbox"/> Non-Profit | |
| <input type="checkbox"/> Communication To: | | |
| <input checked="" type="checkbox"/> Petition Under 37 CFR 1.181(a) Requesting Withdrawal of Holding of Abandonment | | |

Filed By: REF/kd



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

LO et al.

Serial No. 09/243,433

Filed: February 3, 1999

For: Manufacturing Method for Making Tungsten-Plug In An Integrated
Circuit Device Without Volcano Phenomena

Group Art Unit: 2812

Examiner: Not Assigned

PETITION UNDER 37 C.F.R. 1.181(a)
REQUESTING WITHDRAWAL OF THE HOLDING OF ABANDONMENTAssistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The undersigned attorney received a Notice of Abandonment Under 37 CFR 1.53(f) in connection with the above identified application. The Notice indicated that the above identified application is abandoned for failure to timely or properly reply to the Notice to File Missing Parts (Notice) mailed on March 3, 1999. The Notice was mailed on October 10, 2001. This petition has been timely filed.

Applicants have reviewed the file in detail and have concluded that the necessary response to the Notice to File Missing Parts of March 3, 1999 was timely filed on April 23, 1999. As evidence of the filing, Applicants submit herewith a USPTO stamped receipt card dated April 23, 1999, which acknowledges receipt of all of the appropriate papers and fees for a complete response. A copy of the endorsed and deposited check for this application is further evidence that the response was filed in the USPTO.

U.S. Serial Number 09/243,433

Copies of the response and appropriate executed declaration are also included herewith to complete the file and place the file in condition for an examination on the merits.

Since the fee has been paid as evidenced by the Patent Office endorsed check, it is submitted that no further fees are necessary. However, please charge to our deposit account No. 02-0200 any necessary fee for Withdrawal of the Notice of Abandonment in connection with this application.

Respectfully submitted,

BACON & THOMAS, PLLC

By Richard E. Fichter
Richard E. Fichter
Registration No. 26,382

625 Slaters Lane - 4th Fl.
Alexandria, Virginia 22314
Phone: (703) 683-0500

REF:kdd
Pat to Withdraw Abn.wpd

Date: November 8, 2001



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.USPTO.gov

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
09/243,433	02/03/1999	YUNG-TSUN LO	REF/LOS35CIP

CONFIRMATION NO. 2498

BACON & THOMAS
625 SLATERS LANE
4TH FLOOR
ALEXANDRIA, VA 223141176Date 10/12/01 Atty RET
Action Due Abandonment
Deadline _____
Final Deadline _____
ABANDONMENT/TERMINATION
LETTER
OC000000008883117

Date Mailed: 10/10/2001

NOTICE OF ABANDONMENT UNDER 37 CFR 1.53 (f) OR (g)

The above-identified application is abandoned for failure to timely or properly reply to the Notice to File Missing Parts (Notice) mailed on 03/03/1999.


A petition to the Commissioner under 37 CFR 1.137 may be filed requesting that the application be revived.

Under 37 CFR 1.137(a), a petition requesting the application be revived on the grounds of **UNAVOIDABLE DELAY** must be filed promptly after the applicant becomes aware of the abandonment and such petition must be accompanied by: (1) an adequate showing of the cause of unavoidable delay; (2) the required reply to the above-identified Notice; (3) the petition fee set forth in 37 CFR 1.17(l); and (4) a terminal disclaimer if required by 37 CFR 1.137(d).

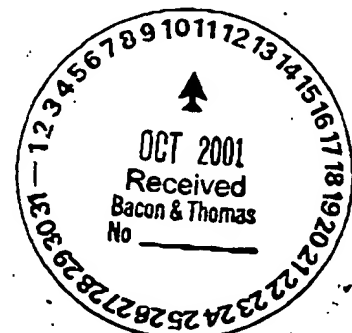
Under 37 CFR 1.137(b), a petition requesting the application be revived on the grounds of **UNINTENTIONAL DELAY** must be filed promptly after applicant becomes aware of the abandonment and such petition must be accompanied by: (1) a statement that the entire delay was unintentional; (2) the required reply to the above-identified Notice; (3) the petition fee set forth in 37 CFR 1.17(m); and (4) a terminal disclaimer if required by 37 CFR 1.137(d).

Any questions concerning petitions to revive should be directed to "Office of Petitions" at (703) 305-9282.

*A copy of this notice **MUST** be returned with the reply.*


Customer Service Center
Initial Patent Examination Division (703) 308-1202

PART 1 - ATTORNEY/APPLICANT COPY



006

BACON & THOMAS 7-86
COMMISSIONER OF PATENTS ACCOUNT
 625 SLATERS LANE PH. 703-683-0500
 ALEXANDRIA, VA 22314

22159

68-760/560
97758

DATE April 20, 1999

**PAY
TO THE
ORDER OF**

COMMISSIONER OF PATENTS & TRADEMARKS

\$ 130.00

One hundred thirty

$$\infty/100$$
DOLLARS

FIRST
UNION

First Union National Bank

FOR

wa et al. 09/243433

Judith A. Rappi

022159 10560076041:2065202824409

100000 13000

SECRET

SAMPAFRANIT. The lack of this document has been printed with a patented security process in order to deter clerical fraud. If you do not see the words "Original Document" and the Security Measure pattern, do not cash.

U3000 04/28/99
CYCLE: 31 MOD-PKT: 1-3

051001414 04/28/59
FUNG 7175 GATEWAY DR
COLUMBIA MO 21046

FIRST V.
6402 AVE
FARM 56

1-608-
A056001-110

RESERVED FOR FPM/ISSA2 INSTITUTION USE

NT AND TRADEMARK OFFICE
13-70-0001
04-26-1999
FOR CREDIT TO THE
U.S. TREASURY

BACON & THOMAS

625 Slaters Lane 4th Fl., Alexandria, VA 22314

**PATENT APPLICATION
(PENDING)**

Serial No: 09/243,433

Filed: February 23, 1999

Attorney: REF

Applicant(s): LO et al.

☒ MAILROOM☐ ART UNIT☐

Special Instructions:

The PTO stamp hereon acknowledges receipt of:

- | | | |
|---|---|---|
| <input type="checkbox"/> Amendment/Response | <input checked="" type="checkbox"/> Missing Parts Response w/Deol. | <input type="checkbox"/> Request for Refund |
| <input checked="" type="checkbox"/> Check \$ 130.00 | <input type="checkbox"/> Appeal Brief (Triplicate) | <input checked="" type="checkbox"/> Form PTO-1533 |
| <input type="checkbox"/> Issue Fee | <input type="checkbox"/> Priority Documents(s) | <input type="checkbox"/> Assignment |
| <input type="checkbox"/> Preliminary Amendment | <input type="checkbox"/> Notice of Appeal | |
| <input type="checkbox"/> Extension of Time Petition | <input type="checkbox"/> Substitute Declaration | |
| <input type="checkbox"/> Terminal Disclaimer | <input type="checkbox"/> Information Disclosure Stmt. --- <input type="checkbox"/> w/refs. | |
| <input type="checkbox"/> Reply Brief (Triplicate) | <input type="checkbox"/> Request for CPA | |
| <input type="checkbox"/> Sheets of Drawings - | <input type="checkbox"/> Formal <input type="checkbox"/> Informal | |
| <input type="checkbox"/> Sm. Entity Statements - | <input type="checkbox"/> Inv. <input type="checkbox"/> Sm. Bus. <input type="checkbox"/> Non-Inv. <input type="checkbox"/> Non-Profit | |
| <input type="checkbox"/> Communication To: | | |
| <input type="checkbox"/> | | |

Filed By:



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

LO et al.

Attention:

BOX MISSING PARTS

Serial No.: 09/243,433

Filed: February 3, 1999

For: A method For Making a Tungsten-Plug In An Integrated Circuit
Device Without Volcano Phenomena**RESPONSE AND SUBMISSION OF MISSING PARTS OF APPLICATION
HAVING BEEN GRANTED FILING DATE**Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

This is in response to the Official Action dated March 3, 1999, in connection with the above-identified application. The period for response to the Official Action has been set to expire on May 3, 1999.

The Official Action acknowledges receipt of the application, but indicates that the Declaration under 37 C.F.R. §1.66 is unexecuted. Applicants submit herewith a properly and fully executed Declaration which identifies the application by serial number, title and by inventors. Form PTO-1533 is submitted herewith along with the required \$130.00 surcharge.

It is believed that the application is now in condition for examination. Accordingly, applicants most respectfully request that an Official Filing Receipt be issued and that the application be forwarded to the appropriate examining group for its examination in due course.

Respectfully submitted,
BACON & THOMAS, PLLCBy: Richard E. Fichter
RICHARD E. FICHTER
Registration No. 26,382625 Slaters Lane, Fourth Floor
Alexandria, Virginia 22314
Telephone: 703-683-0500
Facsimile: 703-683-1080

April 23, 1999

ATTORNEY-DOCKET NO:

DECLARATION FOR PATENT APPLICATION AND APPOINTMENT OF ATTORNEY

As a herein named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention (Design, if applicable) entitled: **A METHOD FOR MAKING A TUNGSTEN-PLUG IN AN INTEGRATED CIRCUIT DEVICE WITHOUT**

VOLCANO PHENOMENA

the specification of which (check one):

☐ is attached hereto, or ☒ was filed on: February 3, 1999

as U.S. Application Number: 09/243,433

and (if applicable) was amended on:

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in Title 35, Code of Federal Regulations, §1.56. I hereby claim foreign priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

PRIOR FOREIGN APPLICATION(S)			PRIORITY CLAIMED	
Number	Country	Day/Month/Year Filed	Yes	No

☐ Additional Priority Application(s) Listed on Following Page(s)

I HEREBY CLAIM THE BENEFIT UNDER TITLE 35 U.S. CODE §119(E) OF ANY U.S. PROVISIONAL APPLICATIONS LISTED BELOW.	
Application Number	Day/Month/Year Filed

☐ Additional Provisional Application(s) Listed on Following Page(s)

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating The United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application(s) and the national or PCT international filing date of this application:

Application Number	Filing Date	Status - Patented, Pending or Abandoned
08/651,535	May 22, 1996	Abandoned in favor of CIP

☐ Additional US/PCT Priority Application(s) Listed on Following Page(s)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: I (We) hereby appoint as my (our) attorneys, with full powers of substitution and revocation, to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: J. Ernest Keuicy, Reg. No. 19,179; Eugene M. Reg. No. 25,893; Richard E. Fichter, Reg. No. 26,382; Charles R. Wolfe, Jr., Reg. No. 28,680; Thomas J. Moore, Reg. No. 28,974; Joseph DeBenedictis, Reg. No. 28,502; Benjamin E. Ureia, Reg. No. 33,800; Chung C. Chen, Reg. No. 31,725; and

I (we) authorize my(our) attorneys to accept and follow instructions from U.S. International Patent and Trademark Office regarding any matter related to the preparation, examination, grant and maintenance of this application, any continuation, continuation-in-part or divisional based thereon, and any patent resulting therefrom, until I (we) or my(our) assigns withdraw this authorization in writing.

Send correspondence to: **BACON & THOMAS, PLLC**
625 Slaters Lane - 4th Floor
Alexandria, VA 22314-1176

Telephone Calls to:
(703) 683-0500

FULL NAME OF FIRST OR SOLE INVENTOR Yung-Tsun LO	CITIZENSHIP Taiwan
RESIDENCE ADDRESS No. 123, Lin Shen Rd. Lo Dong Town, Yi Lan	POST OFFICE ADDRESS IS THE SAME AS RESIDENCE ADDRESS UNLESS OTHERWISE SHOWN BELOW
DATE March 25, 1999	SIGNATURE Yung-Tsun, Lo

☐ See following page(s) for additional joint inventors.

(36A)(1)(178)

ATTORNEY/DOCKET NO: REF/433/LO

CONTINUATION OF DECLARATION FOR PATENT APPLICATION AND APPOINTMENT OF ATTORNEY

Page 2

FULL NAME OF JOINT INVENTOR Raymond TSAI	CITIZENSHIP Taiwan
RESIDENCE ADDRESS No. 636, Jing Cheng Rd. Taichung, Taiwan, R.O.C.	POST OFFICE ADDRESS IS THE SAME AS RESIDENCE ADDRESS UNLESS OTHERWISE SHOWN BELOW
DATE March 28, 1999	SIGNATURE Ray Tsai

FULL NAME OF JOINT INVENTOR Wen-Yu HO	CITIZENSHIP Taiwan
RESIDENCE ADDRESS No. 30, Alley 132, Fu Kuo Rd. 2 Yung Kang City	POST OFFICE ADDRESS IS THE SAME AS RESIDENCE ADDRESS UNLESS OTHERWISE SHOWN BELOW
DATE March 26, 1999	SIGNATURE Wen-Yu Ho

FULL NAME OF JOINT INVENTOR	CITIZENSHIP
RESIDENCE ADDRESS	POST OFFICE ADDRESS IS THE SAME AS RESIDENCE ADDRESS UNLESS OTHERWISE SHOWN BELOW
DATE	SIGNATURE

FULL NAME OF JOINT INVENTOR	CITIZENSHIP
RESIDENCE ADDRESS	POST OFFICE ADDRESS IS THE SAME AS RESIDENCE ADDRESS UNLESS OTHERWISE SHOWN BELOW
DATE	SIGNATURE

☐ See following pages for additional joint inventors/priority applications.

(04/01/1997)